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A recent study was conducted at Stanford University to determine the degree of correspondence between phonemes and graphemes in English. In past attempts to achieve universal literacy, language reformers have proposed a revised alphabet of one grapheme for each phoneme, a change which anti-reformers have insisted would be costly. Modern linguists, on the other hand, have suggested that the key to spelling consists in understanding the system that determines the orthographic sound-symbol relationship. The computer in the Stanford study classified and sorted 17,310 commonly used words according to a set of rules devised by the researchers for defining the American English language. The results indicated that over 49% of the words could be spelled correctly using phonological clues and that another 36% could be spelled with only one error. Utilizing the findings of the Stanford study, educators can develop a new sequential, structured spelling curriculum that will help students understand the basic relationship between sounds and orthographic symbols in English. (JM)

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NEW SCHOOLS for the CITIES

designs for equality and excellence

A working paper
prepared for
The Citizens' Crusade
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Foreword

by Dr. Kenneth B. Clark

THERE is perhaps no more important domestic problem facing the people of the United States today than the problem of quality and efficiency of education in urban public schools. Only the problems of Vietnam, the need to develop and implement a diplomacy, international economic arrangements and programs which would preclude nuclear warfare can be given priority over this problem of the present state of American public education. If there is a positive resolution of the question of the survival of civilization, if nuclear warfare is postponed or prevented, then the question of the quality of public education in the United States and other countries of the world becomes paramount. The quality and substance of public education in a democracy will determine the stability of democracy, the productive use of human leisure and creativity and the depth and richness of life.

It is now clear that American public education under the present organizational and bureaucratic structures, and particularly public education in the larger cities, has reached a point of inefficiency which is a clear threat to national stability in general, and specifically urban viability. The relationship between longstanding urban problems such as poverty, crime and delinquency, broken homes—the total cycle of pathology and poverty—to the breakdown in the efficiency and effectiveness of public education is becoming increasingly clear.

American public schools in the 19th and the early 20th Centuries justified themselves in terms of their ability to demonstrate that they were the prime instruments in social, economic and political mobility for economically depressed peoples. European immigrants and their children were able to use the public schools as vehicles whereby the promises of American democracy were in fact fulfilled for them. The

past successes of American public education seem undebatable.

These previous successes make even more stark the present breakdown in the efficiency of public education. The symptoms of the present breakdown are clear:—massive academic retardation of the low income and minority group youngsters in the public schools of the deprived areas of our inner cities; flight of middle class whites from the public schools to private and parochial schools and to suburban schools; the lack of rapport, and often an adversary relationship between middle class teachers and their working class students which starts from the primary grades and continues through high school or culminates in dropouts.

It is now clearly understood, and unfortunately accepted as inevitable, that as the proportion of Negro and other lower status children increases in a public school the average academic performance of the pupils in that school decreases. This fact seems related to the flight of middle class whites from inner city public schools. Given the traditional and persistent anxiety of the middle class and those aspiring to middle class concerning the importance of education for their children, one could, with reason, postulate that the withdrawal of middle class whites from urban public schools not only reflects their fear of desegregation but also their observation of the reality that with the increased proportion of minority group youngsters, the public schools do in fact become less efficient and the whole educational process deteriorates. Middle class whites and Negroes are fleeing a reality; namely the reality of increasingly inferior public education in the inner city schools.

The inefficiency of our public schools has reached a point of public calamity. Urban public education has almost reached a point of complete breakdown. If the primary victims of this level of educational inefficiency were not lower status and minority group children, the political explosions and fall-out would be devastating. The massive problem requires massive, creative and imaginative solutions. The alibis and rationalizations of the public school establishment are no longer tolerable. The high cost in human lives and creativity are prohibitive. The cost to business and industry wherein trained human resources are not now available to an industrial and automated society which requires an even higher level of education and training than was required in the past is now intolerable. The burden of double or triple

taxation paid by business and industry for the deficient products turned out by the public schools is economically not defensible or tolerable. The cost to the society in terms of public welfare, correctional institutions and mental hospitals is overwhelming. The cost in terms of the stability of democratic society is not calculable. Given all of these factors, it is imperative that there be rigorous, toughminded, and daring thinking toward ways of increasing the efficiency of public education. Relevant solutions must assume the risks of going beyond the established boundaries, organizations and assumptions which are part of the present pattern of inefficiency. This thinking might have to emanate from groups and individuals of the society outside of the traditional educational establishment. It may be that the educators who have developed within the present system and who are, for the most part, its apologists cannot be looked to realistically for the type of massive, drastic remedies which the present state of emergency demands.

The first step in any serious plan of educational reform, of course, has to include attempts at increasing the efficiency of existing public schools. This cannot be done, however, by demonstration programs, enrichment programs, compensatory programs or other types of piecemeal educational gimmicks. Serious solutions must be sought in terms of widespread reorganization of existing public school systems. Included in such reorganization plans must be specific concerns with such matters as curriculum, materials, facilities, methods of teaching, personnel, teachers, teacher aides, principals, assistant principals, assistant superintendents, superintendents and the quality of school board personnel. Probably the most critical component of any major educational reorganization plan is the complex problem of developing machinery for direct accountability of the educational personnel to responsible groups in the immediate and larger communities. Such accountability must be in terms of the academic achievement of the students and is clearly related to the problems of direct community participation in school affairs and accomplishments.

Eventually, remedies for the present problems of public education must be sought in terms of reorganization of public school systems away from present identification with political boundaries. Such ideas involve daring to think in terms of regional public school organization that would cut across urban and suburban lines and include children from the

cities and suburbs in regional campuses or educational parks. Such large central schools would provide the opportunity for diversity of ethnic and economic groups being educated in a common educational system. This would help to break down the present pattern of racial and economic homogeneity which characterizes both urban and suburban schools. The educational advantages for so-called privileged as well as presently disadvantaged children would be found in the fact that the educational environment itself would contribute to the reality of democratic education. The economics, transportation and other logistic problems of this approach must be studied intensively and should be the basis for selected developments in this type of educational reorganization. The persistent questions concerning more realistic formulas for state aid and federal aid to local education could become a part of total planning and analysis.

An even more drastic approach to the problem would move toward the development of a federal public school system which would be parallel to the present local public schools. It is possible to set up federal regional schools with the funds which the federal government is now funneling to states and localities. These funds subsidize the present state of educational inefficiency in locally controlled schools. There is a question of how long the federal government can continue to support financially these schools without developing and enforcing some system of accountability, standards and criteria by which to judge their educational effectiveness. The rationale of federal support for public schools unquestionably is to strengthen these public schools. The increase in federal support without any evidence of increased efficiency of these schools raises serious questions of educational as well as fiscal responsibility. The advocates of local control of schools argue that such local autonomy is essential in terms of itself. More specifically, they argue that federal standards or federal testing programs or any intervention on the part of the federal government in the educational process is a violation of state and local rights. It is conceivable, therefore, that these arguments for full local autonomy will continue to be respected provided that the federal government is not required to support an educational process whose quality it cannot influence or control. Local educational autonomy therefore must be eventually related to local fiscal autonomy. When this occurs, the role of the federal government then becomes one of attempting to

strengthen public education by developing its own system of public schools. This would have the following advantage: the federal government could start *de novo* in terms of the organization of a federal regional public school system. It would have, therefore, maximum opportunity for organizational innovation, educational innovation, experimentation with new educational methods, techniques; and it could set its own standards in personnel selection, criteria for evaluating personnel and curricula. An important advantage of a federal regional school system would be that it would provide a competitive yardstick by which efficiency of the local schools could be continuously measured. Here, too, it would be necessary to do an extensive study of the economics, transportation, demography and logistics which would be relevant to the setting up of such a system. Toughminded, independent social scientists, economists and others should be involved immediately in the task of the type of analysis which would determine the feasibility of this plan.

Thus, educational reform must be approached on three fronts. First, we must fight to radically improve the efficiency and quality of education in existing schools. Second, the development of regional public schools, including federal regional schools should be encouraged. Third, alternatives to public education should be sought through the development of independent, privately managed schools.

The present Citizens' Crusade Against Poverty report, *New Schools for the Cities—Designs for Equality and Excellence,* is most valuable in that it deals with the contemporary reality of the "failure of our present public schools." It is most valuable also in that it moves from this to a discussion of ideas which open up the possibility for fresh and imaginative solutions. It is a contribution to the necessary dialogue which must precede the imperative changes. We must hope that the time is not too late.

Introduction

The following paper attempts to outline the urgent need for the creation of a national network of new, independent, privately-operated schools for the children of the nation's inner cities. It suggests that such schools, to achieve maximum success with educationally disadvantaged students and to provide a setting in which educationally significant experimentation and innovation can take place, must be totally independent of the local public educational establishments. This proposal seeks not only to provide vastly improved educational opportunities for urban children, but also to create opportunities through which educational improvements of the future can be rapidly demonstrated and disseminated for the benefit of all the nation's children.

Former Commissioner of Education Francis Keppel summed up the problem on May 21, 1965: *"Clearly the primary and secondary schools have been doing their worst job for the children who need it most, namely, the children of the poor . . ."*

There are many reasons to expect that schools will continue to fail. Money allotted for the purpose of aiding the disadvantaged often winds up on established lines in the budget where maximum expenditure accomplishes minimum results. Most "compensatory" programs are aimed at helping students catch up to some very minimal standards rather than seeking optimal performance. The money spent doesn't begin to make up for the inequalities in expenditures of the past or of the present. Overwhelming bureaucratic and administrative roadblocks impede significant experimentation or innovation. *Perhaps most important, students in these schools fail because substandard performance is expected of them.* Too many teachers and administrators presume the children of the poor to be less capable of adequate intellectual performance than children from more fortunate economic circumstances. Expectation of substandard performance

virtually insures substandard performance.

A relatively modest amount of money could be invested in the first stages of a national network of independent, privately managed inner-city schools. These schools should be of substantial, demonstration size, rather than of the artificially small "laboratory" class. Their mandate should include not only quality education for the poor, but the development of new and better ways to go about the business of education generally. They should be "leapfrog" schools, which seek to make education in the slums not merely as good as education in the suburbs, but to place slum education on the frontiers of educational excellence.

New, independent schools for the poor can provide a setting which is immediately receptive to the development, trial, and demonstration of the kind of experiment and innovation desperately needed in urban education and, indeed, in the whole education "industry." They can demonstrate, with high visibility and on a significant scale, that the children of the poor can learn as well as anybody else, when properly taught by people who believe in them. They can provide the "old" schools with some healthy competition. They can, in short, provide the kind of catalyst still sorely lacking in the search for better ways to educate the disadvantaged.

Can it be done? Are there enough first-rate people to start the new schools, enough truly innovational ideas to try out, enough indications that the problems we are now trying to solve piecemeal can more readily be solved in a national network of independent schools? There are two answers to these questions. The first is that a surprising number of exciting proposals to develop new schools for the poor, and a substantial number of competent people anxious to try, already exist. The notion of creating a network of such schools as a demonstration of a national approach to a heretofore unsolved national problem is simply an extension of a process already in motion.

The second answer is that we cannot afford *not* to try. New, privately-managed schools, capable of putting together what we have learned about educating the disadvantaged with the freedom required for significant experimentation and innovation, are essential to the effort this counrty must make to arrest the further development of second-class schools for children of the poor.

I. THE FAILURE OF THE PUBLIC SCHOOLS

The Panel on Educational Research and Development of the President's Science Advisory Committee said it most succinctly: *"By all known criteria, the majority of urban and rural slum schools are failures."* [1] The McCone Commission, appointed by Governor Edmond G. Brown of California to investigate the Watts riots in Los Angeles,[2] spelled it out. In examining schools in the Negro area of Los Angeles, the commission reported it found overcrowding, fewer qualified teachers, older school buildings, lack of cafeterias and libraries in many schools and many other deficiencies. The net effect, the report said, was that "average achievement test scores of students in disadvantaged areas were shockingly lower than citywide." [3] It added:

> It appears that the average student in the fifth grade in schools in the disadvantaged areas is unable to read and understand a daily newspaper or to make use of reading and writing for ordinary purposes of his daily life. The degree of illiteracy seriously impairs his ability to profit from further schooling.

This finding can hardly be categorized as news to anybody familiar with achievement records from the poor areas of the major cities in this country. In New York City, in Detroit, in Philadelphia, in Boston, in Chicago, even in Pittsburgh (which may well be a national leader in terms of the scope and quality of compensatory education efforts) the figures are depressingly similar.[4]

Poor students drop out at a rate three and more times that of students who are better off economically. (In Detroit a few years ago, 19.2% of students from families with annual incomes below $5,000 dropped out of high school, while 6.3% of students from families with incomes above $7,000 dropped out). Of those poor students who do not drop out, far greater percentages are relegated to low-status "custodial" tracks which neither develop cognitive skills nor prepare for meaningful gainful employment. The percentage of chil-

dren from poor families who attend college is another index of our national educational inequalities: in 1960, 9% of students from families with annual incomes below $5,000 attended college, 32% of students from families earning between $7,500 and $10,000 attended college, and 44% of students from families earning over $10,000 attended college. Almost five times as many students from families making over $10,000 attended college as students from families making under $5,000.[5]

In Detroit, which Patricia Sexton has studied in great depth and detail,[6] children from families with an income of less than $3,000 are already ½ year behind average grade achievement in the fourth grade, are ¾ year behind average grade achievement by the sixth grade, and are a full 1¼ years behind by eighth grade.[7] When compared to the highest income group (above $9,000) in Detroit, these poor children are 1.36 years behind in fourth grade, 1.82 years behind in sixth grade, and 1.9 years behind in eighth grade.[8]

In Chicago, which had in 1964 a city-wide Grade 6 achievement level of 6.2 in reading and arithmetic, students in the lowest socio-economic district were achieving at a 5.5 level, students from the highest "socio-economic" district were achieving more than two years above that, at a level of 7.8. In the seven districts of Chicago,containing more than 80% Negro children in their classrooms, average sixth grade achievement levels stood at 5.5; in the seven districts with less than 7% Negro children in their classrooms, sixth grade achievement levels stood at 7.2. The city-wide I.Q. score in grade 6 was 99, but it stood a full 19 points higher in the highest socio-economic district than in the lowest.[9] In Pittsburgh, average sixth-grade achievement, in June 1964, for the ten lowest Pittsburgh schools (located in "deprived neighborhoods") was about four years below that of the ten highest Pittsburgh schools in verbal ability and reading, about three years below the ten highest schools in arithmetic and reading, more than one year below average achievement for the nation in verbal ability, reading, and arithmetic, and slightly above average achievement for the nation in spelling.[10]

Comparisons within city school districts provide a stark picture of internal inequalities of success in teaching students from different income groups within the city. A 1965 study of urban, suburban, and rural school systems in the state of Pennsylvania points up another kind of inequality: that be-

tween city systems and other kinds of systems in the same geographical areas. The Pennsylvania study found that urban districts "contained 25 per cent of the State's public school pupils. Yet, these same districts contained 66 per cent of the state's pupils in school districts or attendance areas where average achievement test scores were one-half grade or more below equated norms. Pupils in suburban districts represented 49 per cent of the State's pupils and only 8 per cent of pupils in low achieving districts or attendance areas. Pupils in rural districts represented 25 per cent of the State's pupils and a proportional 26 per cent of the State's pupils in low achieving areas." [11] The study found 96,000 low achieving pupils, or 41 per cent of the district's average daily membership, in Philadelphia and 32 percent of Pittsburgh's average daily membership achieving one-half grade or more below grade level norms.[12]

Some cities have coped with their problem so poorly that they have even managed to bring city-wide norms below grade level. Although six-grade average reading achievement in Pittsburgh has been kept roughly three months above grade level,[13] average city-wide reading levels in Boston fall a full seven months below grade level in sixth grade.[14] By Grade 10, the city-wide reading level in Boston is a full 15 percentiles below the national average.[15]

Given the above figures, which appear to apply to the way our cities educate low-income whites as well as low-income Negroes, one hesitates to ask how low-income Negroes fare under present conditions. The figures, as one might guess, are even more frightening. A picture of the overall national situation is provided in the so-called "Moynihan Report":[16]

Per cent of Nonwhite Youth Enrolled in School Who Are 1 or More Grades Below Mode for Age, by Sex, 1960

Age	Male	Female
7-9 yrs. old	7.8	5.8
10-13 yrs. old	25.0	17.1
14 and 15 yrs. old	35.5	24.8
16 and 17 yrs. old	39.4	27.2
18 and 19 yrs. old	57.3	46.0

If one were to add in the achievement statistics for nonwhite *dropouts,* who represent a significant proportion of the

oldest two groups above, this picture would no doubt look even grimmer. Figures in the "Moynihan Report" also indicate that the percentage of nonwhite youth enrolled in college in this country is less than half the percentage of white youth in college, as of 1963.[17] (To this statistic one should add that 50% or more of the Negroes who attend college in this country are still in segregated Southern Negro colleges.)

In Pittsburgh, of the 10 elementary schools whose students were achieving at the lowest reading levels in the city in sixth grade in 1964, three had 100% Negro enrollment, nine had more than 70% Negro enrollment, and one had 16.1% Negro enrollment. Of the 10 elementary schools whose students were achieving at the highest reading levels in the city in sixth grade, three had no Negroes, eight had 1% or fewer Negroes, and the one with most Negroes had 2.8% Negro enrollment.[18] The school board reports that "children enrolled in a number of schools where the pupils are predominantly Negro are averaging as much as 4 to 5½ years (grade equivalents) below children in a number of schools that are substantially white." [19]

In the Central Harlem section of New York City, 21.6% of the third grade students are reading above grade level, and 30% are reading below grade level. By the sixth grade 11.7% of the students are reading above grade level, and a full 80.9% are reading below grade level. Median equivalent grades in Reading Comprehension for Central Harlem's third grade students are a full year behind the city median and the national norm, by sixth grade they are a full two years behind. The same is true in word knowledge.

In arithmetic, Central Harlem's students are 1½ years behind the rest of the city and the nation by sixth grade, and it is not until eighth grade that they manage to get more than two years behind city and national norms. I. Q. scores among Central Harlem's third grades are at 90.6 (national norm = 100); by sixth grade they have been depressed to 86.3.[20]

Similar stories can be told for Los Angeles, where fifth grade achievement levels for Negro students so alarmed the McCone Commission; for Chicago, where sixth grade achievement levels in the seven most heavily Negro districts are more than 1½ years below that of the seven least heavily Negro districts; and for Detroit, Boston, Pittsburgh, New York, and almost every urban center with a large Negro population.[21] It seems difficult to believe that anybody in

touch with reality could deny that our big city school systems have consistently failed and are still failing miserably to educate low-income urban groups, particularly low-income Negroes. A remarkably high percentage of these students fall so far behind by the end of the sixth grade that the failure of all future education is insured. Huge numbers of them are shunted off the "payoff" tracks onto the custodial tracks almost as early and certainly as rigidly as the more formal and much criticized British "11+" system. Few of those who make it through these obstacles receive the higher educational opportunities open to their frequently less intellectually-endowed but richer peers. The city schools simply do not provide them with the equipment to compete.

Among the many reasons why public schools fail the poor, perhaps the most important, and the most difficult to change on a general basis, is the expectation of substandard performance which seems to infuse the atmosphere of most slum schools. What the HARYOU report found in Central Harlem is probably true for most slum schools: ". . . the major reason why an increasing number of Central Harlem pupils fall below their grade levels is that *substandard performance is expected of them*. For this, the schools, principally its administrators, must shoulder the major responsibility, although the community must share some of the blame."[22]

In the case of Negro children, this problem is considerably exacerbated by what the Moynihan report called "the racist virus in the American bloodstream."[23] Indeed, a survey done by Kenneth Clark's white students suggests that a *majority* of white teachers of Negro youth in New York City considers Negroes inferior to whites.[24] Nevertheless, the expectation of substandard performance, and the self-fulfilling prophecy of failure and low achievement which results from it, is equally an important part of the story of the failure of public schools to educate low-income white youngsters. Here, what Clark refers to as the "clash of cultures in the classroom" is operative.[25] The middle-class-aspiring teacher or administrator, whose origins are sometimes as modest as those of his low-income charges, judges his students and their parents and decides that they are somehow not quite good enough, that they have not made it and are somehow inferior by virtue of that fact. *Once the educator assumes the inferiority of his students, once he fails to understand, for whatever reason, that their innate capacities*

are as good or bad as anybody else's, his low expectations produce poor results, which reconfirm his low expectations. (In those few programs infused with true belief in, and confidence in, and regard for, the student, a positive self-fulfilling prophecy seems to operate almost as strongly.)[26]

If the most important reason why a disproportionate number of inner-city pupils, especially Negroes, fall below grade level in achievement is that substandard performance is expected of them, and if this is a problem of personal attitudes for which the schools must shoulder the major responsibility, then future prospects are dim. The chances of inducing significant changes of attitudes in adults —especially teachers and even more especially administrators—must be regarded as slim. Thus, as long as the people who currently minister to the educational needs of this group have negative attitudes about their ability and potential, substandard performance will continue. Such personnel are likely to continue to maintain their predominant control over inner-city schools for at least the next decade.

Not enough freedom, moreover, exists within the public school system to get the necessary job done. Decent education for the disadvantaged requires a large measure of freedom for all concerned—freedom of the principal from irrelevant and obstructive regulations imposed by cost and public relations-conscious city-wide administrators, freedom of teachers from curriculums designed by others, policing by the principal, and regulations whose purpose is to keep trouble at a minimum, rather than to boost learning to a maximum; and freedom of innovators to follow their innovations through to their logical conclusions.[27]

A large variety of bureaucratic and administrative roadblocks stand in the way of the implementation of the kind of radically new educational institution proposed by most, if not all, of the large urban school systems in the country. One problem which must be stated, no matter how unpleasant or inpolitic, is the low quality of most big city school superintendents. Where leadership in American education seems the most necessary, it appears to be most lacking. Here again, the chances of changing the calibre of big city school leadership rapidly are small. Other such problems involve highly politicized appointment and promotion procedures; parochialism; and rampant red-tapism. Creating new schools may be very difficult; changing old bureaucracies may be even harder.

Equality of educational opportunity, then, will not naturally follow even when equal amounts of time, money, and effort are finally spent on children from low-income families. It will not come even when the nation realizes that to provide true equality of educational opportunity to poor children who are denied many of the extra-school privileges of their economically advantaged peers may require spending more money on them than on others. *Equality of educational opportunity will not come until the world of the school is as receptive a world to the poor child as it is to the advantaged child.* But the likelihood of this kind of change coming about in the public schools is dim.

"Compensatory programs" have, in the past 3-5 years, sprung up in practically every urban school system in the land. Increasingly, our city schools have been spending larger sums of money, providing more special programs and special personnel, and devoting more attention to the problems of educating the disadvantaged in their midst. In California, under the "McAteer Act," the state has, since 1963, provided special additional funds to local school districts for new programs for the disadvantaged. The big foundations have contributed generously to this trend. In 1965, the Ford Foundation granted more than $1 million to the Pittsburgh public schools alone for such programs. In 1965, the United States Congress recognized this problem by providing more than three-quarters of a billion dollars exclusively for purposes of compensatory programs administered by local public school systems, under Title I of the Elementary and Secondary Education Act.

In Boston, however, a recent study shows that certain districts in the low-income Negro areas with compensatory programs still receive less per capita than the city-wide average, in a city where the people in the low-income Negro areas often pay twice as heavy a property tax as whites in upper-income areas, due to inequities in tax assessments between wards.[28] In Pittsburgh, which may have the "best" compensatory program of all the nation's large cities, investment in compensatory education in elementary schools rose from $215,400 in 1960-61 to $1,304,988 in 1964-65, and will rise to $4,337,991 in 1965-66. (Boston's expenditures in 1962-63 were zero; in 1964-65 they were around $350,000).[29] Yet, in June, 1964, average achievement in Pittsburgh's ten lowest-achieving low-income schools was still one and one-half years below the city average.[30]

This raises immediately the question of educational strategy. In Pittsburgh, from 1960-1964, while total investment in compensatory programs went up each year, extra cost per child each year went down. The program, in short, was spread a little thinner each year. The projections for 1965-66 show that, while total extra expenditures are increasing by more than three times, per capita extra expenditures are increasing by less than two times.

The same kind of thinning out process can be seen in what happened to one of the "granddaddies" of compensatory programs, New York City's *Higher Horizons*. Originally known as the Demonstration Guidance Project in its pilot form, this program, by concentrating great quantities of extra resources in a single school, demonstrated some impressive results. When the program was spread out and thinned out across the city, at considerably greater total expense, nothing of consequence happened.[31]

These, then, are some of the problems of the "compensatory" programs of the public schools. They attempt to compensate for the inadequacies of the students rather than the inadequacies of the schools. They invest too little per student to make a real difference in individual progress. They are poorly designed by poor designers. They are, too often, merely attempts to take the pressure off the schools. They buy more of the same wrong techniques that put the child behind in the first place. There is little or no evidence of a decent scholarly nature which shows that they work. There is certainly none which shows that they work well.

In discussing the special shortcomings of large urban public school systems, we have no desire to ignore the many shortcomings which infuse almost all of American public education—urban, suburban, town and country—and we certainly do not wish to imply, as is sometimes done, that if only slum kids could get the kind of education available in the bedroom communities of the nation, all their problems would be over. The city schools share in at least equal measure the many current weaknesses of public education in this country; its authoritarianism;[32] the miseducation of its teachers;[33] its misuse as an agent for imposing a majority culture on the richly diverse minority groups which make up the nation;[34] its development of a school culture that is hostile and/or harmful to children;[35] its unreceptivity to experimentation; its timidity in seeking a larger share of the overflowing wealth of this country for educational pur-

poses. What we are suggesting here is that inner-city schools represent a specific situation of extreme failure within a context of general inadequacy. And we propose not only to bring up the level of inner-city education to inadequate national standards, but to leapfrog beyond that point to new standards of excellence.

II. A PROPOSED REMEDY

Whenever the United States Congress produces new legislation of a "breakthrough" character, as it did in passing the Elementary and Secondary Education Act of 1965 (ESEA), there is always a question of congressional intent. Former Education Commissioner, Francis Keppel, has said the following about Congress' intent in the new education measures:

> The question, presumably, is how may these Federal moneys most usefully be spent. And the Congress on the recommendation of the Executive branch really gave three answers to that question. First, they said we are doing a very poor job for the children of the poor and the disadvantaged, and they allocated over a billion dollars aimed at the schools that serve those children. Second, they said we had better start trying out the idea of research and development and the spreading of new ideas in a conscious fashion, rather than the magnificently unconscious fashion that results from publishing results in educational journals. And the third thing they said we should do is try to strengthen and decentralize management at the state level.

We have been saying so far that the first objective cited by Keppel is being thwarted by excessive reliance on public educational agencies for its implementation—a reliance implicit in the implementation procedures provided by Congress. Much the same case could be made about the agencies given responsibility for spreading new educational ideas, although considerably greater latitude has necessarily been provided in the implementation of the research and development areas. Congress will be fortunate, however, to get anything close to its money's worth in the pursuit of the first and second objectives, given the restrictions implicit in the implementation procedures.

We are suggesting, then, that a relatively small but considerably increased amount of the Federal, state, local, and private moneys available to improve the education of the children of the poor in this country be invested in the first stages of a national network of independent, privately managed inner-city schools. We are suggesting, further, that these schools ultimately be large enough to avoid the in-

herent artificiality of laboratory schools, and to provide the possibility of a rapid build-up, should urban public school systems continue to fail the children of the poor. We propose, finally, that the mandate of these new schools for the poor include not only the provision of decent education for children of the poor but the development and spread of new and better ways to go about the business of education generally.

The potential returns on an investment in such independent, inner-city schools are striking. *To begin with, significant numbers of inner-city students can be provided immediately with a quality of education which public school systems at their best will require considerably greater time to achieve.* We can, in a sense, repair or prevent problems which might otherwise become so acute that they are no longer retrievable—we can save at least part of another lost generation.

Secondly, we can provide, far more quickly than the public schools or their "subsystems," inner-city schools which are receptive to the development, trial, and demonstration of truly novel experiments and innovations. Here the receptivity of "new structures" to innovation in education (ability to by-pass vested interests, provide protection for innovation, aid high focus on the work at hand, etc.)[2] would provide a very real advantage, especially in the light of the many obstacles faced by existing educational systems in implementing innovations.[3] New independent urban schools can thus help to increase the rate of innovation in inner-city education.

The new schools could thus develop effective new patterns in schooling that might be adopted later by public school systems. In the short run, moreover, they could demonstrate the success of certain adaptable features, or components, of their over-all efforts (new instructional materials, new uses of nonprofessionals, new organization of staff) which could immediately be grafted onto existing public educational systems.

New, privately managed inner-city schools can also demonstrate, with high visibility and on a significant scale, the central lesson which all inner-city schools must understand in order to succeed—that the children of the inner-city poor, when taught properly, can indeed learn. If the new independent schools can simply drive this single point home

to those responsible for the education of disadvantaged urban children, they can go a long way toward solving the problem of low expectation which appears to be at the root of so much previous failure with the inner-city poor.

The new schools can have an impact on the "old schools" in yet another way—by providing them with a little healthy competition in a preserve in which they have for too long a time held a monopoly. Here what Matthew Miles calls the schools "vulnerability to outside influence" [4] may be used to improve them. Miles' summary of the findings of a 689-page study of "innovation in education" seems relevant here: "In most cases the initiation for change in an educational system appears to come from outside;" most "local changes appear to involve adoption or adapting, rather than direct invention; outside commentators can induce fear and movement toward change on the part of local administrators . . ." [5]

The development of new kinds of inner-city schools can produce another healthy development in an age when all foresee an impending revolution in education and few foresee its likely shape—the promotion of variety in an area of depressing sameness. The new schools can and should involve new departures in education, different at once from the old schools and from other new schools. The possibility of speeding up an educational revolution in an area where the *status quo* is so intolerable is still another attraction of the privately managed inner-city school.

Most of the above assumes the need for new departures across a broad educational front. It is, indeed, difficult to argue that new instructional materials, new organizational patterns, new staffing arrangements, and the like are not necessary to improve inner-city education. It may well be, however, that when all is said and done, the major difference between the school that succeeds with the urban poor and the school that doesn't, is not that one has a lot of new gimmicks or hardware and the other is traditional, but that one has a preponderance of people who care deeply about, believe in, and demand much of their charges, and the other has a preponderance of people who are not particularly enthusiastic about teaching the urban poor, who tend to emphasize the difficulties of teaching poor inner-city kids, and who are not sufficiently conscious of the possibilities for teaching them better.

Thus the first contribution of the new schools could simply be the gathering together of new people in a new, exciting, and reinforcing atmosphere, under vigorous and demanding leaders. Even this relatively simple initial change, however, would be exceedingly difficult to arrange within an existing school system and would most likely stimulate further changes which existing educational systems would find it difficult to tolerate. If, indeed, the real problem is to provide new *educators* for the poor, the new schools would be far more likely to provide evidence for that conclusion than new programs developed by existing big-city school systems.

Excellent educators can be drawn together into a single independent school more quickly than through any other mechanism. Such schools can, first, appeal to that minority of excellent big-city teachers who now labor so hard, and against such great odds, in an occasional classroom. In fact, the New School for Children of Roxbury, Massachusetts, one of the first independent inner-city schools created by discontented members of a community, was able to open its doors in September, 1966, in part because its staff, drawn largely from the ranks of frustrated Boston teachers, were willing to take substantial cuts in salary in order to work in this new environment.

While it may be argued that new schools will in this manner drain off the talented minority from the public schools, *it seems more likely that these schools will in the long run prove to be a spawning ground for a whole new class of talented teachers who might otherwise never begin careers in inner-city education.* In fact, one of the great strengths of independent schools is their ability to attract new kinds of talented people who might otherwise never get involved in inner-city education. Not only can the young idealists, the bright liberal arts graduates, and the Peace Corps types, who might never begin working for a big-city school bureaucracy, be given a positive start in the new career, but the musicians and artists, the part-time professionals, the talented nonprofessionals from the community, and the guest teachers are also far more likely to be drawn into this new setting. Attracting such new kinds of people would appear to be a far more viable solution to the teacher crisis in our big-city schools than the programs now provided by the NDEA Institutes and Title I in-service training programs.

Independent schools for the poor can also help to bridge the growing gap between school and community, evident in such controversies as that over I.S. 201, a new windowless school in Harlem. By including members of the community serving on its decision-making body, by incorporating people from the community into the instructional staff, by taking an active interest in serving the needs of the community, by making the community the course of study (as the Roxbury New School has done) for much of the day, independent schools can eliminate the artificial separation induced by downtown bureaucracies, alien teachers, and culture-bound curricula.

Independent schools can also serve a "TVA" function for the American education of the future. Just as TVA has served as a public measuring rod against which the performance of private companies can be evaluated, new schools for the poor may serve as private measuring rods against which the performance of public schools for the poor can be tested. How much extra boost can we get for each increased dollar spent on education for disadvantaged kids? Do the *billions* of taxpayers' dollars currently being spent under Title I of the Elementary and Secondary Education Act really have to be wasted? New schools can help to demonstrate what is within the realm of possibility and by so doing, improve the impact which all the money can have.

Independent schools for the poor are also of potential value as cycle-breakers in the perpetuation of welfare generations. It is increasingly clear that sustained educational assistance is required to provide the children of the poor with the equipment to break out of the poverty cycle. The piecemeal programs of the public schools are simply not sufficient. Head Start gains rapidly dissipate when students enter the primary grades; promising signs of progress in junior high school reading programs evaporate in the absence of follow-up programs in the high schools. New schools for the poor, by following through with improved educational quality from grade to grade, by being new educational institutions from top to bottom, are far more likely to make the per-child impact required to help change the odds against the children of the poor ever making it. Such schools are especially likely to recognize the most highly talented students and to provide them with the opportunities they need to go all the way to the top, rather than simply to move one notch ahead of dad's station in life.

New schools could conceivably also help to alleviate more immediate city problems. It should be clear enough by now that the poor share with the rest of America that faith in the value of education for the next generation which has for so long characterized this nation's attitude toward education. That is one reason why bad city schools can be the source of so much frustration in poor communities, especially among minority groups. (In Boston, close to ten per cent of the Negro students in the city seem to be involved in programs which signify a rejection of the opportunities offered by the local schools, through independent programs for busing to suburban schools, busing out of the ghetto, shifting students to "middle-class" private schools, opening new schools [the New School for Children, the Roxbury Community School] and other alternatives.)

Finally, let us look at the advantages sought through the "model subsystem" plan under public auspices. Because of the problems of city schools, those advantages projected for the model subsystem are actually far more likely to accrue from privately managed, inner-city schools. We say this not as an argument against the model subsystem; it is, in fact, a welcome addition. We rather argue for investing in new independent schools, in addition to, and simultaneously with, investments in model subsystems, in pursuit of the following objectives:

> **The subsystem should be of such superlative quality that it would draw children from middle-class as well as deprived neighborhoods. Such subsystems could be started in the nation's largest cities and could be staffed partly by people already working in the schools of these cities, partly by newcomers, partly by outsiders . . .**
>
> **Model systems are needed as testing-and demonstration-grounds for new programs. Novelty in one area may require changes in other areas. If a program is really to be tested, freedom to make those other changes is also necessary.**
>
> **Such structures as nongraded schools and team teaching have been combined before, but they might now be combined additionally with new procedures for recruiting teachers (persons can be hired who are not yet certified); with use of the school as a teacher-training institute (in co-operation with local colleges and universities); with introduction of new curricular ma-**

terials (new teachers can be trained immediately in their use); and with use of other professional people outside the schools (persons who helped develop the new curricular materials can help train teachers in their use).

Such a subsystem would be an experimental system, with freedom to experiment across the board—curriculum, recruitment of teachers, utilization of teachers, the management of the system itself. The system would be sufficiently large to avoid the inherent artificiality of the experimental school. Also new is the proposed systematic involvement in the experiment of resources outside the school, such as colleges and universities. The hope is to develop effective patterns in schooling that can be adopted by other school systems at considerably less expense.[6]

A national network of new, privately-managed inner-city schools must operate in accordance with these assumptions. They should be determinately experimental and innovative in their operation. They most assuredly should not seek to operate according to a single formula or a "unique solution," because we do not know enough yet to justify the adoption of any such formula.

Not knowing enough, however, is not the same as not knowing anything. We shall attempt therefore to delineate certain key features which might be considered essential starting points for the new schools. Later, we shall discuss some of the many diverse general designs and/or guiding principles which have already been proposed for such schools.

Anybody who has looked at the recent overflow of literature on the education of the "disadvantaged," or on new directions in education,[8] will know that it is impossible to cover in brief more than a small proportion of the ideas in these fields, or of the thinking behind the ideas. We shall, therefore, restrict ourselves to a discussion of certain key characteristics which the new schools would do well to keep in mind and to a brief enumeration of other relevant suggestions.

A number of qualities ought to infuse any approach to inner-city schools. The school must be much closer to the community and its problems, and the community must be much closer to the school and its problems; the parents must be much more deeply and honestly brought into the process of educating their children; the school must not only service the educational needs of children between the hours

of 9:00 and 2:30 or 3:00, it must also stand prepared to serve the broader educational needs of the community as a whole; the school must have a program for the continuance of the professional development of its staff; the school must have a curriculum development program which involves the teacher and gives him access to consultations from staff members with special capacities in the area of curriculum development; the school must emphasize the guidance and counseling of its students from the earliest grades in a manner quite different from current, accepted approaches to guidance and counseling.

The school must broaden the categories of staff positions, creating opportunities for teachers to receive increased salaries and responsibilities while retaining teaching roles, offering opportunities for nonprofessionals (especially residents in the community) to serve in significant positions which improve the educational process; to enable staff to move from one level to another as performance and experience and training warrants; and to permit the participation of many kinds of people (artists, lawyers, performers, businessmen, etc.) to contribute to the education of students regardless of their possession of educational credentials of a formal nature. Such schools should take advantage of the technological advances which have taken place over the past decade in education and incorporate what is valuable in the new technology into their design.

One of the major objectives of any plan for a privately-managed school for the children of the poor should be that it concentrate on the recruitment, selection, and development of the right kind of personnel. Quality of personnel—not only in terms of teaching skills, but also in terms of human attitudes—is perhaps the most important variable in the success or failure of any such venture. This means, among other things, that a considerable investment of time, effort, and money in the staff recruitment and selection process is justified. It also suggests the need for more efficient use of the most talented staff members and for an ongoing process of staff development on-site.

More job categories on the faculty (master teachers, curriculum specialist, supervising teacher) will provide extra rewards of money, status, and increased responsibility and importance to talented staff, while retaining the benefits of their talent for the students in the classroom, and for the other teachers. Master teachers can be utilized to do in-

service training, to provide demonstration classes, and to head up teaching teams within the school. The variations of co-operative teaching ought to be tried in more inner-city schools. While teaching in teams can take many different forms, the basic notions of co-operation among a group of teachers, mutual consultation among a group of teachers, and the opportunity for increased responsibility for greater numbers of students by an individual in a leadership position on a team all are very attractive in an inner-city setting.

A staff development program should be an on-going feature of the school. In-service training, preparation for promotion, training in curriculum development and the like will be an important part of the jobs of the master teachers, curriculum specialists, and supervising teachers. The improvement of the capacities of the staff should be viewed as a task of leaders within the school, rather than as something the teacher goes outside the school to get.

The import of all these suggestions relevant to staff should be obvious. The qualities of the people involved in the venture—their skills, their attitudes, their enthusiasm—will undoubtedly be a major variable in the success or failure of the new schools. Their selection and the development of their skills in the context of the specific needs of the school is essential, as is the provision of opportunities to expand their over-all impact and the satisfactions they get from the job.

Another important recommendation for the staff arrangements of new schools for the poor is the maximum use of people from within the community in professional and nonprofessional roles. Arthur Pearl and Frank Riessman, in *New Careers for the Poor: The Nonprofessional in Human Service,* suggest a number of advantages to such arrangements, as a means to reduce colonialism in the schools, as a means to generate pupil incentive, as a way to introduce new role models.[9] The use of teachers' aides to release the teachers from clerical and nonprofessional duties has already been tried successfully in several areas.[10] Henry Saltzman, writing in the Pearl-Riessman book, suggests a number of roles which indigenous aides could usefully serve: as family helpers working with in-migrant parents, as library and/or after-school aides, as nursery mothers in preschool programs, as school-community agents.[11]

As Henry Saltzman has pointed out,[12] the community school is one which seeks to establish unity between the

school and its surrounding community—an objective particularly difficult to develop in areas where the social class level of the community and the educators are different. The idea of the community school, in addition, has come to cover a number of very different concepts, from the idea of the school with a community-centered curriculum to the notion of a school with a community service program.

For inner-city areas, a number of community school concepts seem particularly relevant. The school should hire members of the community to fill certain staff positions. Parents and other people from within the community should be given a voice in the decision-making process of the school. It should offer extra-school educational opportunities to parents as well as students, and keep open its facilities for use by the community. The school must also concern itself with the special problems of the community and be prepared to play a role in their solution, through job-training programs, providing Neighborhood Youth Corps jobs, family educational counseling programs, school health and lunch programs, and the like. The involvement of parents in helping their children to learn, raising their aspirations and their confidence in their ability to "make it" educationally, and valuing education as a means of personal success are also a part of the job of the school in the community.

Just as the school can do a great deal more to involve the parents in the educational process, so can they involve the student more positively and honestly in what school is all about. Rather than demanding that the student tolerate a school culture that is alien to himself and his environment, the schools can attempt to develop an environment in which the curriculum is more aptly geared to the students' life experiences.

A curriculum development center, staffed by specialists, should be an ongoing part of the new school. What is needed here is a more active role for the school staff—not merely in the selection but also in the adaptation, revision, and creation of curricula geared to the special learning styles, needs, and interests of the students. The benefits of involving teachers in the curriculum development process, not merely in terms of the quality of the curricula but also in terms of resulting improvements in classroom performance and professional growth, are becoming more and more obvious.[13] This requires, as we have pointed out above, specialists who can consult with the staff in this aspect of their work, and

the released time made possible by the new kinds of aides and/or the new machines now being developed to handle many of the clerical chores in the school.[14] In this respect, it is perhaps a good example of how one innovation depends on certain other innovations to make it possible, and thus of the necessity for flexibility across a broad front.

The opportunity to exploit new curriculum improvements now becoming available and to adapt them in the setting of an inner-city school,[15] is an important dividend in the idea of a curriculum development center, beyond the necessary services it provides for teachers. This also illustrates one of the key across-the-board advantages of the truly new school. The newness of the school makes it possible to make a fresh start utilizing the latest improvements in physical design, hardware, curricula, organizational arrangements, and the like, without regard for the costs of amortizing previous investments.

One of the most delicate initial problems of the new schools will be the phasing of growth. Care must be taken so that the school in its initial stage is not so large that the administrative problems of setting up and administering a large enterprise consumes a disproportionate share of leadership time which should more properly go towards insuring the quality of the educational effort. Equal care must be taken, however, to make the growth rate sufficiently rapid so that meaningful numbers of children are rapidly served and that the over-all scope of the effort is not permanently frozen at a size too small for the desired impact.

The answer here may be a plan, developed at the outset, which provides for both a relatively small initial stage and for increasingly rapid advances thereafter. For example (and it is only one example), in its first year the school may serve 10% of its ultimate population, in its second year it may serve 30% of its total ultimate population, in its third year it may serve 60% of its total ultimate population. For a school programmed to serve 2,500 students, this would mean 250 students the first year, 750 students the second year, 1,500 students the third year, and 2,500 students thereafter.

Equal care must be taken to plan ahead for problems related to student mobility. When a student moves out of the city, very little can be done, except, perhaps, to give him a basic training course in educational survival before he leaves. When a student moves within the area, the prob-

lem can be solved very readily, by providing transportation between a central point near his home and the privately-managed school.

Certain essential features of the new schools have already been mentioned. The new schools must be completely independent of the public urban educational establishment. They should be sufficiently large to make a real impact—depending on the density of the area served. This might mean anywhere from a school of 2,500 to a school of 9,000 students. They should (in most cases) ultimately provide for all grades, for preprimary to postsecondary. They should seek to provide places and attractions for middle and high income students, while retaining the central function of serving the children of the poor, in order to promote maximum feasible racial and economic balance.

Many of the above recommendations imply that the new schools will be expensive schools. Despite some attention to a number of low-investment, high-return alternatives below, our contention is that in most instances they should be expensive schools.

Within the cities, the inner-city poor have been notoriously short-changed educationally, not only in terms of emotional and cultural rejection by those who run the schools but also in simple economic terms, as is demonstrable in the conditions of their school buildings, the size of their classes, the investment in equipment, and the like, as compared with other areas of the city. Many cities which provide new special programs for the poor do so by exploiting the availability of outside funds, rather than by providing a more equitable redistribution of municipal educational resources, to which the poor contribute more heavily than the rich. Within the metropolitan areas of the country, another sharply inequitable educational investment pattern is noticeable between those who have escaped to the suburbs and those still pent up in the cities. Historically, we invest more local revenue in suburban schools than in city schools, and, within the city, we invest more in middle-class areas than in slums.

Furthermore, anyone who has thought hard about the meaning of equality of educational opportunity will understand that it cannot be achieved by spending the same amount on everybody. The children of the poor don't get an equal start, in school or life, with children who are better off economically unless the school copes with the inequalities already present by the time the poor child enters school. This

means a higher investment in the poor is usually called for, if equality of educational opportunity is to have any meaning.

There is considerable justification for increasing the general rate of expenditure on education in this country, for purposes of the general welfare. In terms of national income, our country's investment in education is not particularly impressive, especially when compared to what we spend as a nation for such things as bombs, cars, and tobacco. In a country which faces, among other revolutions, a revolution in work patterns,[16] this kind of increased expenditure would seem to be a useful investment.

Finally, there is considerable justification for spending extra money on the new schools for the poor because of the experimental and seminal nature of the effort. If these schools succeed, they can become models for similar efforts in many other parts of the country. When one considers the large amounts of money now being spent on efforts which fail to teach the poor, the savings implicit in the spread of models which succeed appear equally large.

These, then, are some of the key features of the new schools for the poor: They should be experimental and innovative. They should include a well-designed staff selection and training program. They should utilize local subprofessionals. They should establish greater unity between the school, the community, the parents and the students. They should include a curriculum development program. They should be carefully phased. They should be prepared to deal with the problem of student mobility. They should invest enough money per child to make a truly significant impact.

III. ALTERNATE DESIGNS FOR NEW SCHOOLS

There are many reasons to promote diversity in the schools of the nation, beyond the simple fact that they are not yet capable of doing a successful job with the children of the poor. The world around the school is simply changing much more radically and rapidly than the school which, presumably, is preparing its students to live and work in it.

Occupational demands in highly scientific and technological fields are expanding more rapidly than the schools' capacity to fill them.[1] The need for continuing and mid-career education is expanding more rapidly than current capacities to fill it. The need to teach people how to "learn to learn," in order to make future adjustments in life and work, is increasing more rapidly than the capacity of our educational system to fill it. Opportunities for utilizing new educational technology in the school are expanding more rapidly than the will or ability to exploit them well. Our capacities to produce children are easily outrunning our capacities to produce teachers who are well-prepared to teach them.[2]

The following examples hardly cover the full range of ideas around for new schools; many of the proposed designs are not as ambitious in size, or scope, or purpose, as the schools we would like to see established, and some may not be completely compatible with some of the statements made previously. They should, however, suggest how broad the range of alternatives could be, and illustrate conclusively that there is hardly a dearth of ideas for such schools. A few of the models included are already operational. The implementation of even a few more of these designs might do much to speed up urban educational progress and to produce the greater foment in urban education which is essential to such progress.

The "Academic School:" *A Mental Health Approach to Elementary Education*

One of the most interesting designs for new schools for the poor has been developed by Dr. Sol Gordon of Yeshiva University.[3] It is based on two key assumptions: that "the learning patterns established during the early years of the urban slum child's school career are crucial to the later development of critical thinking" [4] and that children from slum neighborhoods "will learn equally as well as so-called middle-class children" [5] if they are "provided with the proper climate for learning and with dynamic and skillful teachers."

Gordon's model school, the many details of which cannot be included here,[6] is designed to develop in the young disadvantaged child the self-image of a competent learner and to provide him with the attitudes towards himself and learning, and the tools for later school success. It is, in a sense, a preremedial model which asserts that what the school does in the early school years for the child can eliminate the need for future remediation for most disadvantaged students, and that the psychological impact of the school is vital.

Gordon's approach, moreover, does not ignore the "special class" child. Based on his own research and the work of others,[7] Gordon provides a detailed set of conclusions on how to select special class students so that all those who can learn in regular classes end up in regular classes and so that those "emotionally handicapped" children who are placed in special classes can derive maximum educational benefits from them.

The College Laboratory School. The notion of a laboratory school connected with a university through its Graduate School of Education or education division is hardly new, although such schools have most often catered to other populations (such as professors' children) than the children of the poor. The notion of a university laboratory school specifically for the children of the poor is also not new; one is currently being planned at the University of Illinois, for example, and another is in the planning stage at the University of Chicago.

The university laboratory school for the poor seems like an approach well worth trying, but only with certain essential amendments.

Parents, the students, the community leaders, and, let us add, the teachers, ought to be given significant representation in the policy-making processes of any new school,

through participation on the Board of Directors, a voice in the selection of the policy makers, and the like.

Nor should we seek the solutions to educating the poor exclusively through their education departments. What we are looking for within the university are people, often with no relation to the education department, who have demonstrated interest and concern for the problems of the poor and who are now willing to learn and do more, as well as the educationists (like those at the University of Chicago) who have already provided leadership in the field.

We are talking about a new kind of laboratory school, one in which the university plays a major role, but one which differs in some significant ways from the ordinary university laboratory school. Such a school could be organized under private sponsorship in which people in the university (or in a consortium of universities) could play a significant, but not necessarily exclusive, role and in which museums, independent schools, and other community educational agencies could also participate. It could also provide the necessary setting for trying out "leapfrog" ideas and be built around the loose organizing principle of innovation and experimentation, with administrative arrangements which facilitated rather than delimited the range of experiment.

The "Duhl School". Dr. Leonard J. Duhl, a psychiatrist with the Department of Housing and Urban Development, has proposed a new K-4 school for "lower class communities."[8] The K-4 School assumes that "what are needed are approximately four years of preliminary work getting the underprivileged child ready to meet the demands of school." In each urban neighborhood, a classroom would be built in the community, in the living environment of the child, utilizing specially built rooms in new housing or space modified for classroom use in older housing. "A collection of such rooms, scattered about the community and bound together by electronic devices such as telephone, intercom systems, and television, would make a school."[9]

The parents and the community would be part of the classroom—the parents involved in education, the adolescents paid to perform certain "needed functions." The families and the surrounding community of people will become the "urban agents" that tie the child to the community and its facilities and to the "middle-class world of the urban metropolis."[10]

The Duhl School, like the Academic School of Sol

Gordon, is designed to prepare the children of the poor for ultimate success in the higher grades of the regular public schools. In light of existing sources of funds for experimental ventures, this is well worth trying. Obviously, however, if better educational opportunities can be provided on an independent, privately-managed basis at the upper grade levels as well, both these models could feed into new higher-level schools for the poor.

The Community Education Center. Certain "community-school" notions ought to be included in new schools for the poor. The community school idea, in its most expanded form, might also serve as a guiding principle for the overall design of a school, which might better be described as a community education center.

Such a school would include the community school ideas already discussed, and in addition, could:

—develop a community-centered curriculum[11]

—use the community as a reservoir of work experiences, giving employers in the community some voice in curriculum planning and utilizing them for student work-study experiences[12]

—develop a large-scale community service program, actively seeking to serve the community not only through after-school courses and the utilization of its physical facilities, but also with a definite plan of action to coordinate school and community activities.

—develop a comprehensive plan for subprofessional employment and serve as a training ground for launching new careers for the poor.

—tap other kinds of talent in the community—artists, musicians, writers, lawyers, politicians—to teach classes or to work with small groups with a shared interest.

The Moon-Shot School. Frank Riessman, in an October, 1965, paper entitled "It's Time for a Moon-Shot in Education,"[13] states, quite appropriately, that the goals of most existing educational programs for the children of the poor are still surprisingly low, that they "talk about bringing the deprived child up to grade level as though this were some lofty, marvelous objective," and that, in fact, a "subtle pessimism runs through much of the discussion of the education of the poor."[14]

Dr. Riessman proposes that "it is time to consider not the piecemeal use of this technique here and that technique there, but the combination of a variety of approaches that

seem to work on both a practical and theoretic basis," that we must, in short, develop a rounded, intensive program that combines what we have been learning in many areas of the country to produce "dramatic, powerful improvement in large numbers of disadvantaged youngsters."[15]

Among the outline features of such a program are the following:

—"Innovation teaching technology" would be a central feature of the program.

—The program could be placed within the framework of an educational park or educational complex, which would allow for economic utilization of a great variety of new techniques and facilities under one roof.

—Large numbers of subprofessionals, drawn from the ranks of the poor, would be trained for new careers to serve as teacher assistants, teacher aides, parent-teacher coordinators and the like.

—Teaching techniques which are uniquely related to the learning strengths and "positive style" of the disadvantaged would be emphasized throughout. Riessman, in short, proposes to put together many recent innovations and lessons we have learned into one single package, so that a student can gain the benefit of all of them put together.[16]

The New Educational Technology School. Perhaps the furthest-out frontier of all the new educational frontiers is in the world of the new educational technology, a world made up not merely of programmed instruction, educational television, new kinds of films and other relatively familiar technological innovations, but also, and increasingly, of data processing, information retrieval, computer-based simulation, automated classrooms, electronic transducers for "effortless learning," information system concepts, and various forms of computer-assisted instruction.[17]

A school designed to experiment with the maximum application of the new educational technology to the special needs of the children of the poor would be a welcome addition to any national network of independent, privately-managed inner-city schools.

An inner-city school which maximized the use of new educational technology already developed and was designed to test out and accommodate the application of future technological innovations as a part of an over-all instructional

system could provide significant laboratory and demonstration opportunities for private companies currently moving into this field.[18] It might attract large-scale financial assistance from such companies eager to try out new devices to demonstrate their value in a real school situation, and to help contribute to the solution of the problem of the education of the poor.

The North Carolina Advancement School. Funded with public and private monies, the Advancement School operates under the auspice of the Learning Institute of North Carolina. Part of the program involves in-service education for the teachers, designed to give them working knowledge of new approaches and techniques and a great understanding of student problems and motivation.[19] This school is testing the alternative of temporarily taking the disadvantaged student out of school at a strategic moment, teaching him for a limited period, and injecting him back in with new skills at a point at which he can succeed.

Other Models. Another organizing concept around which new schools can be built is the parent-initiated and operated co-operative school. Such a school is currently being planned in Boston by a group of Negro parents who are unhappy with the rate of progress in the public schools. Although not designed exclusively for the disadvantaged, the Burgundy Farm Country Day School in Alexandria, Virginia, does provide a model for certain aspects of a school, initiated by parents, in which parent participation and the integration of school and home environments is emphasized.[20]

Another possibility, most recently suggested by Christopher Jencks, would be for a group of teachers with a particular idea or ideal of education to band together into a nonprofit corporation and operate the school. The administration of such a school would be responsible to the teachers, rather than vice versa, and the teachers involved might well prove to be the kind of positive self-reinforcing group which may be the keystone of any new successful effort.[21] The use of Educational Stipends of various sorts to pay children to go to school, has been proposed by others as a means of providing income for poor families and of motivating them to keep their children in school.

Certain educational institutions in other countries may have relevance as models for new schools for the poor.

Comprehensive secondary schools specifically designed to help educate poor Asian and African immigrants in Israel, part-time secondary schools and secondary "polytechnical" schools (the graduates of which retain the option of further academic schooling or a technical vocation for which they have also been prepared) in the Soviet Union, and the like may well provide key ideas for new schools for the American poor.[22]

Another possibility would be privately-managed schools contracted out to private business firms, like Xerox, IBM, or Lytton Industries, which are already becoming involved in the education business and have demonstrated an ability to develop successful new approaches to training and education, educational administration, and the like. Such private firms might well find it in their own interest to contribute to the support of such schools as places to demonstrate the success of their new educational techniques and hardware, as ways to develop new talent for future employment, and as laboratories for the further development of marketable educational wares.[23]

CONCLUSION

V. ONE LEAP FROG SCHOOL

We have discussed the failure of the public schools and some of the reasons underlying this failure, as well as a number of the concepts that have been advanced by creative educators to meet the problem.

This discussion may be synthesized in a concrete description of what a truly advanced institution might look like—a leap frog school that would meet present day needs.

This school would not simply be an institution which merely does better than city schools currently do with city kids, nor even a school which accomplishes for inner-city kids what the best independent or suburban schools now manage to do for their clientele. We intend to "leapfrog" over the kinds of educational improvements already introduced in the best suburban schools in a major, qualitative fashion.

The idea of a leapfrog school may sound ambitious, but, in fact, anything less is probably inadequate under present circumstances. We have permitted education in the slums to deteriorate so badly that the relationship between the public schools and American democracy has become severely strained.

Instruction in the leapfrog school will be organized along relatively novel lines to help encourage change. We shall leave out of our initial plans several common features of the typical public school, including textbooks, classrooms, and classroom teachers. There is perhaps no more reason to legislate textbooks, the typical 30-40 student classroom, and the ordinary classroom teacher completely out of existence than there is to begin by assuming that nothing should be taught through computers or television sets. The point

is really that texts, teachers and classrooms represent the usual formula, which we have no compelling reasons to assume is the best formula, and that, by avoiding them, our chances of devising a school which produces radical improvements in the process of educating slum kids are probably enhanced. If these items are really so essential, let them find their way back in as the school develops.

In place of the usual classroom instruction, each student will get a learning "recipe" based on his current accomplishments, the mode of instruction most appropriate to his individual way of learning, and to the particular subject matter he is learning. Thus one nine-year old may be studying a subject for more hours per week than the other student; he might be studying the subject at a higher level than the other student; and he might be utilizing a different mode of instruction (a computer-assisted learning console) from the other student (television course plus small group discussions with a community aide).

Each student's learning recipe will be designed with the aid of a sophisticated testing and counseling staff, utilizing computers for data-processing purposes. There may be at the beginning only a limited number of alternate "recipes" available to each student, but the long-range goal will be to maximize the extent to which programs can be individually tailored.

The approach here is much akin to the "instructional systems" concept except that conventional instructional methods are completely eliminated from the system, and the components of the instructional system vary from child to child. In addition, maximum feasible emphasis will be placed on the following components in every student's instructional system, or learning "recipe": Individual and small-group auto-instructional teaching; closed-circuit television classes, also in small groups; workshops utilizing student-created instructional materials; directed independent study, individually. or in teams; small-group problem-solving sessions.

Key Organizational Features

The leap frog school will also partake of the features described earlier, with special emphasis on the following:

—Employment of local community people in a great variety of professional and sub-professional roles, with ample room for advancement through the ranks.

—Provision for sufficient transportation to accommo-

date a highly mobile student population as it moves from place to place and to bring in, from outside the community, students admitted to lend racial and economic diversity to the student body.

—A counseling program designed to increase parental involvement in the learning process and to reach out into the community to deal with problems which affect school performance.

—Provision of those basic human needs (food, medical attention, etc.) which constitute prerequisites for learning.

—Special attention to the problem of the so-called "special" student, including experimental programs.

—A Board of Directors (the policy-making body) including representatives of the community, parents, students, school staff and knowledgeable people from the surrounding academic and professional community.

The school will also incorporate the following ideas:

—Concentration below fifth grade level, on the development of the foundations of future learning and of each student's self-concept as a learner, so that, by the time he enters fifth grade, he will view school learning as a job that he knows how to do and that is rewarding and interesting.

—Staffing through a combination of highly motivated young professionals, maximum utilization of people from within the community, carefully selected potential leaders, and the extensive use of part-time teachers from a large variety of professions.

—A series of neighborhood "storefront" classrooms for young students who cannot be accommodated on-site.

—Provision of supplementary educational services during non-school hours to public and parochial school students who cannot be accommodated in the regular, full-time program.

—A physical plant with built-in adaptibility to the new educational technology and sufficient flexibility to accommodate innovations of the future.

—Clustering of all the classes on a single campus with the levels of schooling organized in the following fashion:

A. The Early School (Pre-School 1, P.S. 2, Kindergarten)
B. The Foundation School (1-4)

C. The Middle School (5-8)
D. The Secondary School (9-12)
E. The Community College (13-14, plus adult courses)
—A non-graded structure for the foundation, middle, and secondary "schools."

The "leapfrog" school will accommodate approximately 150 full-time, on campus students per grade with, perhaps, a higher enrollment in the crucial middle years. This means a total ultimate full-time on-campus enrollment of 2000-2500, plus additional numbers of younger students served in "storefront" schools and students of all ages served through the supplementary education program. These additional groups could bring the number of children served to between four and five thousand.

The admissions procedure of the school will be designed to produce a representative sample of the students in the community served, plus the students from outside who opt in to the school and who are accepted for purposes of maximizing economic and racial diversity. Unlike some urban parochial school systems, it will studiously avoid skimming the "cream off the top" in its admissions and retention procedures.

The leapfrog school will keep its doors open to observation and mutual exchange with teachers of the public school system and their leaders. Hopefully, moreover, a certain percentage of the leadership and teaching staff of the leapfrog school will choose ultimately to try to use the talents they have developed [through work within] the public school system. Aspects of the school's teacher development program and curriculum development services can also be readily plugged in to the needs of teachers in the public school system, should it show an interest in them. The goal here is as much contact as possible with the problem of all the city's schools, within the context of maintaining the complete independence of the leapfrog school from their control.

Two distinct possibilities are immediately apparent in terms of the future of the independent leapfrog school. One is that it will pose a challenge which the public school system is unable to meet, and eventually will have to replicate itself in other areas or expand the number of students under its exclusive influence to the point where it replaces the failing public school system. The second possibility is that the school, once having built up its own independence, personality, and power, might later be incorporated into a much-

changed public school system as its model sub-system, or laboratory school. Here we might visualize the independent school provoking considerable change in the public system, and then entering the system with a far better chance of preserving its autonomy than the current "instant" public sub-systems appear to have.

The school whose outlines are beginning to emerge is clearly one of the kinds of new schools we need in this country. It is intentionally designed for maximum receptivity to innovation and experimentation. Its demonstration value, locally and, indeed, nationally is potentially very great. It is, by virtue of its independence, its newness and its scope, a means to gather a large number of people who care deeply about educating the children of the poor together in an environment which reinforces their concern and their successes. It is the calibre of these people and the way in which their talents are organized for maximum effectiveness which will ultimately produce the superior inner-city school.

The quality of the staff, and particularly of its leaders, will "make or break" the school. What this means to the planner is that the staff recruitment and selection procedures, the staff training program, and the proper definition of staff roles are all-important. Certain practices follow naturally from this simple statement, such as:

(a) More time, money, and effort ought to be spent on staff recruitment and selection than is usually the case.

(b) Competitive salaries ought to be paid to key leadership personnel.

It is essential that the independent character of the school frees its organizers from political pressures on staff hiring and from exclusive or even predominant reliance on those who are members of the teaching "guild". Here is the place where newness and autonomy really pay off. There is no deadwood to get rid of. Staffing can exploit the tremendous range of talent within the community without excessive reference to formal credentials. Those who have often been looked upon as overqualified to work in our schools can be tapped, as well as those who have talent to share but no credentials to show. Just as, to paraphrase Mr. Keppel, education is too important to be left in the hands of educators, teaching has become too important to leave exclusively in the hands of teachers.

Any resemblance between the leapfrog school and our public inner-city schools should be purely coincidental. It

would thus be surprising indeed if all the ideas proposed herein were to prove successful. In view of the failure of the current formula, however, it seems well worth the expense to initiate the kind of experimentation and innovation proposed. We have replicated the education of our fathers long enough. We have cheated the children of the poor far too long. We have nothing to lose but a discredited set of educational habits which should have long ago gone the way of the zeppelin and the Gramophone.

Notes, Section 1

1. Panel on Educational Research and Development of the President's Science Advisory Committee, *Innovation and Experiment in Education,* Washington, D. C. 1964, 30
2. *New York Times,* December 7, 1965, 26
3. Quoted in *ibid.*
4. Evidence and statistics relevant to these cities have been taken principally from the following sources: Patricia Cayo Sexton, *Education and Income: Inequalities in Our Public Schools,* New York, 1961; Harlem Youth Opportunities Unlimited, *Youth in the Ghetto: A Study of the Consequences of Powerlessness and a Blueprint for Change,* New York, 1964; U.S. Department of

Labor, Office of Policy Planning and Research, *The Negro Family; The Case for National Action*, Washington, 1965; Pittsburgh Board of Public Education, *The Quest for Racial Equality in the Pittsburgh Public Schools*, Pittsburgh, 1965; Robert J. Havighurst, *The Public Schools of Chicago: A Survey for the Board of Education of the City of Chicago*, Chicago, 1964; Robert Levey, "The Dilemma of Boston Schools," The Boston *Globe*, December, 13-18, 1964; Fels Institute of Labor and State Government, *Special Education and Fiscal Requirements of Urban School Districts in Pennsylvania*, Philadelphia, 1965; Massachusetts State Advisory Committee to the United States Commission on Civil Rights, *Report on Racial Imbalance in the Boston Public Schools*, Boston, 1965; and Detroit Community Action for Youth, "Education in The Target Area," Detroit, 1962

5. Herman P. Miller, *Rich Man, Poor Man*, New York, 1964, 163
6. Sexton, *Education and Income*.
7. *Ibid.*, 28.
8. *Ibid.*
9. Havighurst, *The Public Schools of Chicago*, 39. See also pp. 208-209 for high school figures.
10. Pittsburgh, *Quest for Racial Equality . . .*, 16.
11. Fels Institute, *Special Education and Fiscal Requirements of Urban School Districts*, passim.
12. Ibid.
13. Pittsburgh, *Quest for Racial Equality . . .*, 16.
14. Levey, "Dilemma of Boston Schools," Boston *Globe*, December 14, 1965.
15. Ibid.
16. U.S. Department of Labor, The Negro Family, 31
17. *Ibid.*, 32
18. Pittsburgh, *Quest for Racial Equality*, 14.
19. *Ibid.*
20. Harlem Youth Opportunities, *Youth in the Ghetto*, 190-193.
21. Francis Keppel, Quoted in Harvard Graduate School of Education Bulletin, "Commissioner Keppel Discusses H.R. 2362," Vol. X, Summer 1965, Number 2, 63.
22. HARYOU, *Youth in the Ghetto*, 237
23. U.S. Department of Labor, *The Negro Family*, preface
24. Kenneth Clark, "The Clash of Cultures in the Classroom," in Meyer Weinberg, ed., *Learning Together: A Book on Integrated Education*, Chicago, 1964. (See also the same author's *Dark Ghetto*, New York, 1965, 134-138)
25. *Ibid.*
26. See Harold Baron, "Samuel Shepard and the Banneker Project," in Weinberg, ed., *Learning Together* and Wilkerson, "Programs and Practices . . .," 1-3. Dean Alan Blackmer of Philips Andover commented on the success of the 1964 Carnegie Foundation pre-college programs in much the same terms. ". . . may be the answer is as simple as placing youngsters in the hands of able, vigorous people who obviously care about their welfare . . ." Report to Carnegie Foundation, August 20, 1964, Mimeograph, 2.
27. Christopher Jencks, "Private Management for Public Schools," Education Memorandum #4, October 26, 1965, Institute for

Policy Studies, Washington, D.C. Mimeograph, 2.

28. See *National Tax Journal*, March 1965
29. Pittsburgh, *Quest for Racial Equality*, 34
30. *Ibid.*
31. Doxey A. Wilkerson, "Programs and Practices in Compensatory Education for Disadvantaged Children," Mimeographed, 1-5
32. Panel on Educational Research *Innovation and Experiment*, 31; see also Myron Lieberman, *The Future of Public Education*, Chicago (Phoenix), 1962, 37-39
33. See, for example, James D. Koerner, *The Miseducation of American Teachers*, Boston, 1963; James B. Conant, *The Education of American Teachers*, New York, 1963; Myron Lieberman, *The Future of Public Education*, Chapter VI
34. See, for example, Otto Klineberg, "Life is Fun in a Smiling Fair-Skinned World," *Saturday Review*, February 16, 1963; Nancy Larrick, "The All-White World of Children's Books," *Ibid.*, September 11, 1965
35. See Edgar Z. Friedenberg, *The Vanishing Adolescent*, New York, 1959

Notes, Section 2

1. Francis Keppel, "Commissioner Keppel Discusses H. R. 2362," in Harvard Graduate School of Education Association *Bulletin*, Vol. X, Summer, 1965, No. 2, 13
2. Matthew B. Miles, "Innovation in Education: Some Generalizations," 643, in Miles, ed., *Innovation in Education*, New York, 1964
3. *Ibid.*, 632-635, 644.
4. *Ibid.* 635
5. *Ibid.*, 640
6. Panel on Educational Research and Development, *Innovation and Experiment in Education*, 38.
7. A number of publications are of special interest here. For bibliographical purposes, Training Department, Mobilization for Youth, *Master Annotated Bibliography of the Papers of Mobilization for Youth*, New York, 1965, and Virginia I. Clifford, *Urban Education: An Introduction to the Literature of Research and Experimentation*, New York, (Union Theological Seminary), 1964, offer helpful supplementation to Susan Silverman's annotated bibliography which serves as Part II of Bloom, Davis, and Hess, *Compensatory Education for Cultural Deprivation*. Descriptions of compensatory education programs are provided in the following: Educational Research Service, American Association of School Administrators and Research Division, National Education Association, "School Programs for the Disadvantaged" Educational Research Service Circular No. 1, Washington, 1965; Research Council of the Great Cities Program for School Improvement *Promising Practices from the Projects for the Culturally Deprived*, Chicago, 1964; Chicago Public Schools, *Compensatory Education*, Study Report, No. 4, 1964 series; U.S. Office of Education and Office of Economic Opportunity, "Education: An

Answer to Poverty," Washington, 1965. Also of note are Ch. 6 of Kenneth Clark, *Dark Ghetto*, New York, 1965; Ch. 5 of Patricia Cayo Sexton, *Spanish Harlem*, New York, 1965; Allison Davis, "The Future Education of Children from Low Socio-Economic Groups," Chapter II of Stanley Elam, ed., *New Dimensions for Educational Progress*, Bloomington (Phi Delta Kappa), 1962; Allison Davis, "Cultural Factors in Remediation," in *Educational Horizons*, Vol. XLIII, No. 4, 231-251; C. W. Hunnicutt, ed., *Urban Education and Cultural Deprivation*, Syracuse University Press, 1964; *Urban Education*, Vol. I, Nos. 1-4, 1964-65 University of Buffalo Foundation; Arthur Pearl and Frank Riessman, *New Careers for the Poor*, New York, 1965; Edmund Gordon, "A Review of Compensatory Education," *American Journal of Orthopsychiatry*, 35, (July) 1965; Limitations of space preclude a listing of many other articles carried in scholarly publications over the past two years, but the reader will quickly see the necessity of keeping *au courant* through such means as Yeshiva University's Information Retrieval Center on the Disadvantaged (IRCD) *Bulletin*.

8. The following are of special interest: Donald P. Bushnell, *The Role of the Computer in Future Instructional Systems, Audio Visual Communication Review*, Vol. II, No. 2 (Special Supplement); Matthew B. Miles, *Innovation in Education*, Washington, 1964; Theodore B. Dolmatch, Elizabeth Marting and Robert E. Finley, *Revolution in Training, Programmed Instruction in Industry*, New York, 1962 (American Management Association); Terry Ferrer, "Classroom Revolution," New York *Herald Tribune* reprint, 1963; Report on Instruction, NEA, *Schools for the Sixties*, New York, 1963; Gabriel D. Ofiesh and Wesley C. Meierhenry, *Trends in Programmed Instruction;* Papers from the first annual convention of the National Society for Programmed Instruction, Washington, 1964; Samuel Baskin, ed. *Higher Education: Some Newer Developments*, New York, 1965; Department of Audiovisual Instruction, N.E.A., "Media and the Education of the Disadvantaged," January 1965 issue, Vol. 10, No. 1
9. Riessman and Pearl, *New Careers for the Poor*, 72-73
10. See, for example, Arthur Morse, "Freeing the Teacher for Teaching," Chapter 4 of *Schools of Tomorrow—Today*, New York, 1960, and Margaret Jamer, "School Volunteers New York, 1961."
11. Chapter 3, "The Poor and the Schools," 48.
12. H. Saltzman, "The Community School in the Urban Setting," in Passow, *Education in Depressed Areas*.
13. A good example of such a project is the Newton (Massachusetts) High School social studies project, under the direction of Mr. Wayne Altree.
14. See no. 5 above and D. Klemer, "Freedom for Creativity," in de Grazia and Sohn, *Revolution in Teaching*.
15. The curricula, like other innovations, appear to penetrate urban school systems more slowly than other school systems. More to the point, perhaps, they often tend, when adopted, to be rather slavishly implemented, without sufficient regard for necessary adaptations.

16. Cf. Grant Venn, *Man, Education and Work*, Washington, 1964. Chapter 1, and Donald N. Michael, *The Next Generation*, New York, 1963, Chapter 10.

Notes, Section 3

1. Donald N. Michael, The Next Generation, Vintage, 1965 (1963), 9.
2. Ibid., 90. See also Myron Lieberman, *The Future of Public Education*, Chapter 6.
3. Sol Gordon, "An Approach to Primary Education in Urban Slums: A Mental Health Orientation." Mimeographed, March 1965.
4. *Ibid.*, 1.
5. *Ibid.*, 2.
6. *Ibid.*, 25-35
7. *Ibid.*, Appendix A.
8. Leonard J. Duhl, M.D. "K-4/ A New School." Reprint of article provided by Dr. Duhl in a private communication. Unfortunately the reprint does not indicate the journal in which this brief article was originally published.
9. *Ibid.*
10. *Ibid.*
11. Saltzman, "The Community School in the Urban Setting," in Passow, Education in Depressed Areas, 322 ff.
12. Ibid. See also Paul R. Hanna and Robert A. Naslund, "The Community School Defined," in Fifty-Second Yearbook of the National Society for the Study of Education, Part II, Chicago, 1953.
13. Frank Riessman, "It's Time for a Moon-Shot in Education" October, 1965, Mimeographed.
14. Ibid., 2.
15. Ibid., 2-3
16. Riessman, "Moon-Shot . . .," 14.
17. See Chapter 4, Note 3, plus David G. Ryans, "A Theory of Instruction Based on Concepts of Information Systems," Symposium on Theories of Teaching, American Psychological Association, August 29-September 4, 1963 (Mimeograph); "What Aerospace Sees On the Ground," *Business Week*, September 17, 1965; David Ryans, Don Bushnell, and John F. Gogswell, "A Computer-Based Laboratory for Automation in School Systems." Systems Development Corporation, 1962.
18. Christopher Jencks has proposed this idea in the Memorandum #4, "Private Management for Public Schools," October, 1965, Institute for Policy Studies, Washington, D.C. Mimeograph, 2.
19. Mimeographed and printed material received from the North Carolina Advancement School.
20. Director's Status Report, 1963-64, Burgundy Farm Country Day School, Inc. (Alexandria, Virginia)
21. See Note 18
22. Nigel Grant, Soviet Education, Baltimore, 1964.
23. See Note 18.